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# The Misprediction of Emotions in Track Athletics: Is Experience the Teacher of all Things?

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People commonly overestimate the intensity of their emotions toward future events. In other words, they display an impact bias. This research addresses the question whether people learn from their experiences and correct for the impact bias. We hypothesize that athletes display an impact bias and, counterintuitively, that increased experience with an event increases this impact bias. A field study in the context of competitive track athletics supported our hypotheses by showing that athletes clearly overestimated their emotions toward the outcome of a track event and that this impact bias was more pronounced for negative events than for positive events. Moreover, with increased athletic experience this impact bias became larger. This effect could not be explained by athletes' forecasted emotions, but it could be explained by the emotions they actually felt following the race. The more experience athletes had with athletics, the less they felt negative emotions after unsuccessful goal attainment. These findings are discussed in relation to possible underlying emotion regulation processes.

Every day people make *affective forecasts*. They anticipate how certain decisions or events will make them feel. These decisions and events vary considerably in importance, ranging from mundane issues such as picking a TV dinner in the supermarket to important issues such as whether to take a job offer. What they all have in common, however, is that people try to anticipate how these decisions and events will make them feel. Given their prominence and potential importance in determining future behavior and well-being, one would expect affective forecasts to be accurate. Abundant research suggests, however, that people are quite inaccurate in forecasting their emotions to future decisions or events. They commonly overestimate the intensity and duration of their emotions to a large variety of focal events, that is, they display an *impact bias* (for an overview, see Wilson & Gilbert, 2003). Although the literature leaves little doubt about the robustness of the impact bias, the role of experience with the focal event has received little attention. Do

people learn from their mistakes? Our research aims to illuminate the role of experience in the impact bias. Counter to intuition, we argue that experience will increase rather than decrease the impact bias. Thus, we propose that people learn from their mistakes. However, rather than learning to make more accurate affective forecasts, we hypothesize that they learn to more efficiently cope with their emotions.

## AFFECTIVE FORECASTING AND THE IMPACT BIAS

Research on affective forecasting typically compares people's predictions about how they will feel in response to a future event with their actual felt emotions following the event. This research converges to suggest that people are often inaccurate in forecasting the intensity and duration of their future emotions, especially their negative emotions (Wilson & Gilbert, 2003). This *impact bias*—the tendency of people to overestimate the emotional impact of future events on their lives—has received ample empirical support. For example, it has been shown that romantic partners overestimate how bad they feel if their relationship ends,

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football fans overestimate their happiness after their team won a game, college students overestimate their negative emotions if they would be assigned to an “undesirable” dormitory, people gambling with money overestimate how unhappy they feel when they lose, professors overestimate their positive emotions following a positive tenure decision, and people taking their driver’s license exam overestimate their disappointment after failing the exam (Dunn, Wilson, & Gilbert, 2003; Finkenauer, Gallucci, Van Dijk, & Pollmann, 2007; Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998; Kermer, Driver-Linn, Wilson, & Gilbert, 2006; Wilson, Wheatley, Meyers, Gilbert, & Axsom, 2000; see also Buehler & McFarland, 2001; Gilbert, Gill, & Wilson, 2002; Gilbert, Lieberman, Morewedge, & Wilson, 2004; Gilbert, Morewedge, Risen, & Wilson, 2004; Loewenstein & Schkade, 1999; Sanna & Schwarz, 2004; Wilson, Meyers, & Gilbert, 2001, 2003).

In light of the pervasiveness of the impact bias, the question arises whether people learn from their experiences and correct for the impact bias. To illustrate, after having failed to win an athletic competition, athletes may realize that their disappointment was not as intense as they had forecasted. After having lost several competitions, athletes should come to realize that “this too will pass.” Although it is appealing to predict that people will learn from their experiences and diminish their impact bias, empirical evidence is scarce. More important, the existing literature gives rise to different predictions.

To investigate the influence of experience on the impact bias, it is important to note that the impact bias consists of two components of emotions. The first component is the *forecasted emotion*, that is, the intensity and duration of the emotion people anticipate to experience after the future event has happened. The second component is the *felt emotion*, that is, the intensity and duration of the emotion people actually experience following the event. Experience with the event may affect each component or both, thereby affecting the impact bias. To illustrate, after having experienced many failures in competitions, athletes may learn to adjust their affective forecasts (i.e., they predict less intense disappointment), they may learn to cope more effectively with their emotions (i.e., they feel less disappointment), or a combination of both.

Focusing on the effect of learning on affective forecasts, researchers assume that to learn from their experiences, people need to accurately recall their emotions to previous events that are similar to the future event for which they make an affective forecast. The literature suggests, however, that people have a poor memory for their affective experiences (e.g., Thomas & Diener, 1990; Wirtz, Kruger, Scollon, & Diener, 2003). To illustrate, Wilson et al. (2003) showed that participants overestimate

not only the impact future events will have on their emotions but also the impact past events had on their emotions. Specifically, participants in their studies recalled feeling more intense and more enduring emotions following a past event than they actually felt immediately after the event had happened. These studies clearly suggest that people fail to learn that emotional reactions to events are often less impactful than forecasted, because people recall a more intense and more enduring emotion than these events actually provoked. Similarly Ross (1989) demonstrated that people often reconstruct previous affective states inaccurately to match their beliefs and expectations. Likewise Morewedge, Gilbert, and Wilson (2005) showed that when remembering previous events, people tend to recall atypical instances rather than typical ones. If people recall unusual events to make forecasts about future events, these forecasts may be inaccurate because people rely on events that are unrepresentative of the past experiences. Thus, research converges to suggest that people do not accurately recall the intensity and duration of their emotions.

Focusing on the effect of learning on felt emotions, researchers suggest that people may become better and more effective at emotion regulation with greater experience. To illustrate, in a study by Carstensen, Pasupathi, Mayr, and Nesselroade (2000), participants ranging in age from 18 to 94 participated in an experience-sampling procedure in which they rated five emotions during a 1-week period. Negative emotional experiences declined in frequency between the ages of 18 and 60. More important, the authors calculated the extent to which participants recovered from negative emotional experiences and found that older people recovered more efficiently from negative emotional experiences than younger people, indicating that with age people learn to better cope with emotions. Similarly, Labouvie-Vief and her colleagues (Labouvie-Vief & Diehl, 2000; Labouvie-Vief, Hakim-Larson, DeVoe, & Schoeberlein, 1989) consistently found age to be associated with better skills to integrate affect and cognition, thereby providing older people with more effective emotion regulation and coping mechanisms. Thus, research on aging and emotion regulation seems to suggest that with experience people learn to better recover from and cope with their emotional reactions.

Taken together, the literature seems to suggest that if learning affects the impact bias it is more likely to influence people’s felt emotions than their forecasted emotions. This gives rise to the counterintuitive hypothesis that increased experience with an event *increases* the impact bias. Specifically, people do not seem to accurately recall previous emotional experiences, thus experience should not affect subsequent affective forecasts. Experience should, however, affect felt emotions, because people learn to cope more efficiently with their

emotions. This indicates that people's felt emotions will be less intense the more experience they have with a specific event. For the impact bias, this set of predictions thus suggests that the difference between forecasted emotions and felt emotions should increase with greater experience. To our knowledge, there is no empirical research that investigated how experience affects both components of the impact bias.

## THE PRESENT RESEARCH

To test our hypotheses in a real-world setting we investigated affective forecasting in the context of competitive track athletics. Because in competitive athletics people are repeatedly confronted with successes and failures, this context provides an excellent field setting in which people have both gained experience with the focal event and an opportunity to learn from this experience. In our study we assessed the intensity of athletes' forecasted and experienced emotions following a track event. The number of athletic competitions in which athletes competed on average per year was assessed as indicator of their athletic experience. Furthermore, we assessed athletes' appraisals of goal attainment desirability and probability and attributions about their athletic performance. These appraisals and attributions might covary with athletic experience, thereby influencing the intensity of athletes' forecasted and felt emotions. For example, research has shown that failing a goal evokes more intense negative emotions the more this goal was appraised as desirable or probable (Van Dijk & Van der Pligt, 1997; Van Dijk, Van der Pligt, & Zeelenberg, 1999; Van Dijk & Zeelenberg, 2002a, b; Van Dijk, Zeelenberg, & Van der Pligt, 1999).

In our research we hypothesize, in line with our analysis just presented, that athletes display an impact bias and this impact bias becomes larger with more athletic experience. Moreover, we expect athletic experience will differentially affect the two components of the impact bias. Whereas experience will not alter athletes' forecasted emotions, it will reduce the intensity of their felt emotions. Support for our hypotheses would suggest that people do not learn by experience to predict their emotions more accurately, but that they do learn to cope more effectively with their emotions.

## METHOD

### Participants

Participants were 89 (46 male, 43 female;  $M_{\text{age}} = 25.81$  years,  $SD_{\text{age}} = 6.99$  years) amateur and semiprofessional track athletes. They were recruited during a Dutch

athletic competition and were offered a bottle of energy drink as appreciation for their participation. All athletes were members of the Royal Dutch Athletic Union, and they participated, on average, in 18.40 ( $SD = 9.54$ ) athletic competitions per year.

### Procedure

Six research assistants were recruited to help with the data collection during different track events. Each assistant met with several athletes prior to the start of their track race. At the muster point, athletes were asked to indicate their track event goal for their upcoming race (in terms of running time and specified in up to one hundredth of a second) and their appraisals of *goal attainment desirability* and *goal attainment probability*. Both appraisals were assessed by placing a mark on a 100 mm line (appropriately labeled at each end), resulting in scores on a 100-point scale, whereby higher scores indicated a higher desirability or a higher probability of attaining their goal. Subsequently, athletes' forecasted positive and negative emotions were also assessed with 100-point scales, whereby higher scores indicated a higher intensity of forecasted emotions. Positive emotions were assessed by asking athletes to rate how much happiness, contentment, and satisfaction they would feel if they succeeded at reaching their goal (Cronbach's  $\alpha = .89$ ). Negative emotions were assessed by asking athletes to rate how much disappointment, "sick with it,"<sup>1</sup> and frustration they would feel if they failed at reaching their goal ( $\alpha = .79$ ). For about half of the athletes, positive emotions were assessed first, whereas for the remaining athletes negative emotions were assessed first. In addition, athletes provided information regarding their age, gender, and the number of athletic competitions in which they participated on average per year. Immediately following their race, athletes' running times were recorded, and their felt positive and negative emotions were assessed with 100-point scales. Positive emotions were assessed by asking athletes to rate how much happiness, contentment, and satisfaction they felt "at this moment" ( $\alpha = .93$ ). Negative emotions were assessed asking athletes to rate how much disappointment, "sick with it," and frustration they felt "at this moment" ( $\alpha = .93$ ). For about half of the athletes positive emotions were assessed first, whereas for the remaining athletes negative emotions were assessed first. Finally, athletes' internal and external attributions for their athletic performance were assessed by asking athletes (on 100-point scales) to what extent they themselves were responsible for their running time and to

<sup>1</sup>We used the Dutch colloquial term *balen*. This term is represented best by the English colloquial term "to be sick with it."

what extent external circumstances were responsible for their running time, respectively.

## RESULTS

### Unsuccessful and Successful Goal Attainment

Of the 89 athletes, 20 (11 female, 9 male) succeeded at reaching their track event goal, whereas 69 (31 female, 37 male, 1 unreported gender) failed at reaching their track event goal. A multivariate analysis of variance with athletic experience, age, goal attainment desirability, and goal attainment probability as dependent variables and goal attainment (successful vs. unsuccessful) as independent variable yielded no significant multivariate result,  $F(4, 80) = 2.14$ ,  $p = .08$ . Follow-up univariate analyses showed that successful and unsuccessful athletes did not differ in the athletic experience, age, goal attainment desirability, and goal attainment probability ( $F_s < 3.87$ ,  $p_s > .05$ ; see Table 1).

A multivariate analysis of variance with forecasted positive and negative emotions and felt positive and negative emotions as dependent variables and goal

attainment as independent variable yielded a significant multivariate result,  $F(4, 84) = 6.36$ ,  $p < .001$ ,  $p\eta^2 = .23$ . Follow-up univariate analyses showed that successful and unsuccessful athletes did not differ in their forecasted emotions ( $F_s < 1.62$ ,  $p_s > .21$ ). They did, however, differ in their felt emotions. Successful athletes felt more intense positive emotions and less intense negative emotions than unsuccessful athletes,  $F(1, 88) = 16.51$ ,  $p < .001$ ,  $p\eta^2 = .16$  and  $F(1, 88) = 12.95$ ,  $p = .001$ ,  $p\eta^2 = .13$ , respectively.

### The Impact Bias in Track Athletics

Initial analyses did not yield significant gender effects ( $F_s < 1$ ). Therefore data were subsequently collapsed across gender for the main analyses. The impact bias implies that successful athletes overestimate the intensity of their positive emotions, whereas unsuccessful athletes overestimate the intensity of their negative emotions. To investigate athletes' impact bias a mixed analysis of variance was conducted with focal emotions (i.e., forecasted and felt positive emotions for successful athletes and forecasted and felt negative emotions for unsuccessful athletes, respectively) as repeated measures and goal attainment as independent variable.<sup>2</sup> This analysis showed the following effects: A significant main effect of *goal attainment*,  $F(1, 87) = 28.69$ ,  $p < .001$ ,  $p\eta^2 = .25$ , indicating that across forecasted and felt emotions, successful athletes rated their positive emotions as more intense than unsuccessful athletes rated their negative emotions. A significant effect of *focal emotions*,  $F(1, 87) = 5.30$ ,  $p = .02$ ,  $p\eta^2 = .16$ , indicated that, across positive and negative emotions, athletes predicted more intense emotions than they actually felt. This effect suggests that, as hypothesized, athletes display an impact bias. A slight trend for an interaction effect of *goal attainment* and *focal emotions*,  $F(1, 87) = 2.45$ ,  $p = .12$ ,  $p\eta^2 = .03$ , suggests that the impact bias differs for positive and negative emotions. Follow-up analyses with planned comparisons showed that successful athletes felt about equally intense positive emotions ( $M = 72.63$ ,  $SD = 22.34$ ) as they had predicted ( $M = 75.22$ ,  $SD = 23.22$ ;  $F < 1$ ). Whereas unsuccessful athletes felt less negative emotions ( $M = 36.96$ ,  $SD = 30.34$ ) than they had predicted ( $M = 50.50$ ,  $SD = 23.10$ ),  $F(1, 68) = 15.79$ ,  $p < .001$ ,  $p\eta^2 = .19$ . This

TABLE 1  
Means and Standard Deviations of Relevant Variables for  
Successful and Unsuccessful Goal Attainment

Variable	Goal Attainment	
	Successful	Unsuccessful
No. of athletes	20	69
Age of athletes		
<i>M</i>	28.35	25.05
<i>SD</i>	8.95	6.15
Experience in track athletics		
<i>M</i>	16.70	18.90
<i>SD</i>	11.07	9.06
Desirability goal attainment		
<i>M</i>	74.25	84.86
<i>SD</i>	32.47	16.49
Probability goal attainment		
<i>M</i>	67.25	64.49
<i>SD</i>	19.28	19.01
Forecasted positive emotions		
<i>M</i>	75.22	81.53
<i>SD</i>	23.45	18.40
Forecasted negative emotions		
<i>M</i>	54.78	50.50
<i>SD</i>	28.65	23.10
Felt positive emotions		
<i>M</i>	72.63 <sub>a</sub>	44.66 <sub>b</sub>
<i>SD</i>	22.34	28.21
Felt negative emotions		
<i>M</i>	10.88 <sub>a</sub>	36.96 <sub>b</sub>
<i>SD</i>	20.79	30.34

Note. Different subscripts within each row represent significant differences between means.

<sup>2</sup>Athletes were asked to predict their positive emotions after successful goal attainment and their negative emotions after unsuccessful goal attainment. Neither athletes' forecasted negative emotions after successful goal attainment nor their forecasted positive emotions after unsuccessful goal attainment were assessed. Therefore we did not conduct an overall mixed analysis of variance with focal emotions as repeated measures and goal attainment (successful vs. unsuccessful) and valence of emotions (positive vs. negative) as independent variables.

effect indicates that, as hypothesized, the impact bias is more pronounced for negative emotions following unsuccessful goal attainment than for positive emotions following successful goal attainment.

### The Impact Bias and Athletic Experience

To investigate the influence of athletic experience on the impact bias for positive emotions following successful goal attainment and the impact bias for negative emotions following unsuccessful goal attainment, separate regression analyses were conducted for successful and unsuccessful athletes. The impact bias was operationalized as the difference score between forecasted and felt positive emotions in the analyses for successful athletes and as the difference score between forecasted and felt negative emotions in the analyses for unsuccessful athletes. In both series of regression analyses we regressed the impact bias on goal attainment desirability, goal attainment probability, internal attribution, external attribution, age, and athletic experience.

Analyses for successful athletes showed that none of these six variables reliably predicted the impact bias for successful goal attainment,  $t_s < 1.21$ ,  $p_s > .24$ .

Analyses for unsuccessful athletes showed that athletic experience predicted a larger impact bias ( $B = 0.90$ ),  $t(58) = 2.17$ ,  $p = .03$ . None of the other five variables reliably predicted the impact bias ( $t_s < 1$ ; see Table 2 for relevant correlations). These findings indicate that athletic experience predicted the impact bias for negative emotions following unsuccessful goal attainment.

Of importance, additional analyses showed that athletic experience did not predict athletes' goal setting. There was no statistical relationship between, on one hand, the difference between athletes' goal and their actual running time and, on the other hand, athletic experience,  $r(68) = .05$ ,  $p = .69$  and  $r(20) = .08$ ,  $p = .75$ , for successful and unsuccessful athletes, respectively.

These results suggest that experienced and less experienced athletes set about equally realistic goals.

### Athletic Experience and Forecasted and Felt Emotions

To investigate how precisely athletic experience affects the impact bias separate regression analyses were conducted for positive emotions of successful athletes and negative emotions of unsuccessful athletes. First, we regressed forecasted emotions on goal attainment desirability, goal attainment probability, internal attribution, external attribution, age, and athletic experience. Second, we regressed felt emotions on these six predictors.

Analyses for successful athletes showed that when goal attainment was appraised more desirable, athletes predicted to feel more intense positive emotions ( $B = 0.37$ ),  $t(13) = 2.38$ ,  $p = .03$ . None of the other five variables was a reliable predictor of forecasted positive emotions,  $t_s < 1.21$ ,  $p_s > .25$ . Furthermore, results showed that none of the six variables reliably predicted athletes' felt positive emotions,  $t_s < 1.13$ ,  $p_s > .27$ .

Analyses for unsuccessful athletes showed that when goal attainment was appraised more desirable, athletes predicted to feel more intense negative emotions ( $B = 0.36$ ),  $t(58) = 2.05$ ,  $p < .05$ . None of the other five variables was a reliable predictor of forecasted negative emotions,  $t_s < 1.08$ ,  $p_s > .28$ . Results concerning felt negative emotions showed that when goal attainment was appraised more desirable, athletes felt more intense negative emotions ( $B = 0.57$ ),  $t(58) = 2.57$ ,  $p = .01$ . More important, results showed that athletic experience predicted less intense felt emotions ( $B = -1.19$ ),  $t(58) = -2.87$ ,  $p = .006$ . None of the other four variables reliably predicted felt negative emotions ( $t_s < 1$ ). These results indicate that athletic experience did not affect athletes' forecasted negative emotions, but it did affect athletes' felt negative emotions. That is, athletes felt less

TABLE 2  
Correlations Between Variables Involved in Regression Analyses for Unsuccessful Athletes

Variable	Variable							
	1	2	3	4	5	6	7	8
1. Athletic experience	—							
2. Impact bias negative emotions	.24 <sup>†</sup>	—						
3. Forecasted negative emotions	-.06	.32*	—					
4. Felt negative emotions	-.27*	-.68*	.47*	—				
5. Age	.09	.02	-.14	-.12	—			
6. Desirability goal attainment	.19	-.01	.30*	.23 <sup>†</sup>	-.03	—		
7. Probability goal attainment	.16	.08	.06	-.03	.11	.15	—	
8. Internal attribution	.17	.10	.12	-.01	-.11	.21 <sup>†</sup>	.06	—
9. External attribution	.31*	.00	-.02	-.01	-.06	.10	.17	—

Note.  $65 \leq N \leq 69$ .

<sup>†</sup> $p < .10$ . \* $p < .05$ .

intense negative emotions the more athletic experience they had.

## DISCUSSION AND CONCLUSIONS

Our research investigated the role of experience in affective forecasting. Using a field study among track athletes, we replicated existing findings on affective forecasting and the positive-negative asymmetry of the impact bias. Moreover, we extend previous findings by showing how experience with an event influences both components of the impact bias, forecasted emotions and felt emotions.

Athletes grossly overestimated the intensity of their negative emotions toward failing to reach their goal. Consistent with recent findings on the impact bias (e.g., Dunn et al., 2003; Finkenauer et al., 2007; Kermer et al., 2006; Wilson et al., 2001; see Wilson & Gilbert, 2003), they show an impact bias, and this bias is more pronounced for unsuccessful goal attainment than for successful goal attainment. These findings provide an elegant demonstration of the impact bias in a real-world context. Although our findings converge with earlier research, showing that the impact bias is more pronounced for negative events than for positive events, given the relative small subsample of successful athletes our findings concerning successful goal attainment should be treated with some caution.

Our research is the first to show how experience affects both components of the impact bias, thereby extending previous research in important ways. First, our results show that regarding forecasted emotions athletes' experience did not affect their forecasted emotions. Our results thereby suggest that people do not learn from their experiences and correct for the impact bias. This is in line with Wilson et al.'s (2001) suggestion that, although experience with a negative event may improve the accuracy of one's affective forecasts in certain situations, the extent to which people learn from their affective forecasting errors seems to be quite limited. The magnitude of the impact bias for negative events might be so large that it remains even after people have corrected for it to some degree. Moreover, ample research has shown that the impact bias is pervasive and that people display this bias for events that they had experienced before and could have learned from, such as sports games, missing a train, presidential elections, term papers, and exams (Dunn, Brackett, Ashton-James, Schneiderman, & Salovey, 2007; Finkenauer et al., 2007; Gilbert, Morewedge et al., 2004; Gilbert et al., 1998; Wilson et al., 2000). Furthermore, research found no link between people's age and their reports of how they would feel right after the events (Wilson, Gilbert, &

Salthouse, as cited in Wilson & Gilbert, 2003).<sup>3</sup> Second, our results show that athletes' felt negative emotions were affected by experience with track athletics. Negative emotions became less intense with more experience. Our results thereby support the suggestion that people may become better and more effective at emotion regulation with greater experience (cf. Carstensen et al., 2000). Thus our study is the first to show that people experience affects the impact bias and that it influences their emotional experience and not their emotion forecast. These effects lead to the counterintuitive observation that increased experience with an event increases the impact bias.

One explanation for the finding that experience leads to less intense negative emotions may be that with experience people learn to better recover and cope with emotional reactions. More experience implies more familiarity with negative events and therefore people may learn to down regulate their negative emotions more effectively. A major source for the impact bias is that people may fail to anticipate that when emotional events occur, they swiftly regulate these events by rationalizing, reconstructing, or reinterpreting them (Gilbert et al., 1998; Wilson & Gilbert, 2003). These regulation processes, which might include dissonance reduction, self-affirmation, motivated reasoning, and positive illusions (e.g., Festinger, 1957; Kunda, 1990; Steele, 1988; Taylor, 1991; Tesser, 2000), transform emotion-producing events psychologically in ways that ameliorate their impact and speed recovery from them. However, by failing to take into account how rapidly these processes occur, people tend to overestimate the intensity of their future emotional reactions. Although people are motivated to make sense of any novel and emotion-producing event, they are especially motivated to regulate events that are negative and potentially challenge their sense of well-being. Therefore the impact bias is usually larger for negative events than for positive events, as we found also in our research (cf. Finkenauer et al., 2007; Kermer et al., 2006; Wilson & Gilbert, 2003).

Why do people clearly overestimate their future negative emotions? An accurate prediction of how one would feel following a future event could enable people to make more optimal decisions concerning possible courses of action. Therefore, would it not be better if people could accurately predict, for example, how much failure hurts? A possible answer to this question might be that overestimating future emotions serves a self-regulatory function (cf. Wilson & Gilbert, 2003, 2005).

<sup>3</sup>This study did, however, show that after the age of 60 people showed a decrease in the predicted *duration* of their emotional reactions. This finding suggests that people might learn that their emotional reactions return to baseline relatively quickly but that this realization might come only after a great amount of experience.

It could, for example, motivate people to try harder to avoid negative events in order to prevent the experience of the anticipated strong negative emotions. The advantage of experience might lie primarily in a better regulation of negative emotions.

### Possible Limitations and Future Directions

Although our findings support our hypotheses, because of the correlational nature of our data, we are not able to draw conclusions about the underlying causal relationship between experience and (forecasted and felt) emotions. In our study, neither success nor failure in goal attainment was experimentally manipulated. Participants were also not randomly assigned to different levels of experience with the focal event. As our study was a nonexperimental field study the lack of experimental control of the variables under investigation may represent a limitation to our research. Although our real-world setting increases the ecological validity of our findings, causal statements about specific relationships between different variables are not possible. We cannot exclude the possibility that our findings can be attributed to specific characteristics of successful or unsuccessful athletes or to specific features of experienced and less experienced athletes. For example, our finding that more experienced athletes reported relatively little negative emotions following unsuccessful goal attainment might be because of selection effects, whereby athletes who experience strong negative emotions drop out of competition. However, the robustness of our findings and their consistency with experimental studies increases our faith in our findings. Moreover, our findings indicate that successful and unsuccessful athletes did not differ in athletic experience, age, desirability of goal attainment, probability of goal attainment, and forecasted emotions. Our findings also showed that athletic experience was not related to goal setting, desirability of goal attainment, probability of goal attainment, or age. The fact that we controlled for these many potential confounds make alternative explanations for our obtained findings less likely.

Because our study was conducted in a competitive environment, future research might need to replicate our results in other goal-directed domains, which are not as competitive (e.g., saving money, losing weight, etc.). Furthermore, future research could focus on experimentally inducing the (non-)attainment of goals and manipulating participants' experience with the focal event. This would allow for making causal statement about the hypothesized relations. To investigate the effect of experience on the duration of emotions, follow-up studies could combine several assessments of affective forecasts before the focal event took place and several assessments after the event took place. These

studies enable to examine possible dynamic changes in both positive and negative emotions (cf. Finkenauer et al., 2007). Moreover, future research could examine the specific regulation processes people employ after goal failure. By assessing regulation processes more specifically after the event took place, the role of experience in these processes could be addressed more directly.

### Concluding Remarks

Our study investigated how experience affects the impact bias. Findings of this study suggest that experience with an event does not affect people's subsequent affective forecasts, but it does clearly influence their negative affective experiences. Felt negative affect will be less intense the more experience people have with a specific negative event. Our research suggests that experience may not teach people to predict their future emotions more accurately, but it might teach them how to regulate their felt negative emotions more effectively. Thus, experience may not be the teacher of all things, it certainly does teach some important lessons.

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